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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,182	10/20/2000	Kiichi Yamashita	XA-9377	5723

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EXAMINER
MOTTOLA, STEVEN J

ART UNIT	PAPER NUMBER
2817	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 692182	Applicant(s) Yamashita et al.
	Examiner Mothola	Group Art Unit 2817

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☑ Responsive to communication(s) filed on September 12, 2002.

☑ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☑ Claim(s) 1-16 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☑ Claim(s) 5, 6, 15, 16 is/are allowed.

☑ Claim(s) 1-4, 7-10, 13, 14 is/are rejected.

☑ Claim(s) 11, 12 is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)–(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)–(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO–1449, Paper No(s). _____

☐ Interview Summary, PTO–413

☐ Notice of Reference(s) Cited, PTO–892

☐ Notice of Informal Patent Application, PTO–152

☐ Notice of Draftsperson's Patent Drawing Review, PTO–948

☐ Other _____

Office Action Summary

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1,2,7,8,13 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Ruth et al.

Fig. 3 of Ruth et al. shows a gain controlled amplifier 309 that may be read as the claimed amplifier of claim 1. It is controlled by a circuit 329 that may be read as the claimed control circuit of claim 1. This circuit is shown in more detail in fig. 2. It receives an input control voltage AGC and generates a bias current for the amplifier that is exponentially related to the control voltage. See the abstract and the paragraph bridging col. 4 and 5 of the disclosure of Ruth et al. Regarding claim 2, the circuit 329 includes a cirucit 201 for converting the input control voltage into a current, a circuit 202 that develops a reference voltage therefrom and a circuit 204 that converts

that voltage to a current for biassing amplifier 309. In regard to claims 7 and 13, as described in the above noted passages, the control current is self limited by the circuit 329. In regard to claims 8 and 14, the bias current is temperature compensated as described at col. 4, lines 25-60.

In regard to the amendments and argument made against the above rejection, Ruth et al. State on lines 6-7 of col. 5 that their function behaves as an exponential function over at least the given range so that the claim language as amended would still be met.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3-4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruth et al. in view of Ichihara.

The difference between these claims and Ruth et al as described above is the plurality of amplfier stages each with a separate control circuit. However, it is known for cascaded amplifier stages to have individual gain control circuits receiving the same control voltage as claimed. Note for instance fig. 5 of Ichihara which discloses cascaded amplifiers 1-4 each having its own gain control signal circuits 62-69 that ultimately receive the same control signal Vc. It would have been obvious to cascade amplifiers such as amplifier 309 of Ruth et al if greater gain was desired and further obvious to control them with individual circuits such as circuit 329 of Ruth et al for more precise control thereof. The motivation would be the above teachings of Ichahara.

Claims 11-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5,6,15 and 16 are allowed.

The current mirror arrangement and specific semiconductor materials of these claims are not disclosed in the prior art of record in the context claimed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Mr. Mottola at telephone number 308-4914.

Steven J. Mottola
Primary Examiner